

In the Specification

Please replace paragraphs [0001] through [0016] with the following:

Related Application

This is a §371 of International Application No. PCT/FR03/02466, with an international filing date of August 5, 2003 (WO 2004/015571, published February 19, 2004), which is based on French Patent Application No. 02/10000, filed August 6, 2002.

Field of the Invention

~~The present~~This invention pertains to the field of communication between applications within an operating system. In ~~fact, in the~~ standard computer operating systems such as ~~[[()]]~~ Windows™, ~~etc.) and the like, the~~ launched applications exchange messages by means of the system ~~in order to~~ obtain information regarding each other. ~~The present~~This invention ~~therefore has the intention of responding~~responds to the problem of confidentiality on the Internet by preventing certain or all applications to have access, e.g., to the user data collected by a navigator.

Background

It is increasing illusory to believe that it is possible to surf the net without being subject to spying. Numerous “free” programs available on the Internet take advantage of the access that the user grants them by installing them for spying on the user’s connections and drawing up a consumer profile to be sold. Worse, certain programs have the objective of bringing back to their creators notably passwords, identifiers, credit card numbers and all other types of personal information pertaining to the user. The method used by these spy programs (spyware) is simple: since most of the operating systems are created such that the applications can dialogue with each other, these spyware programs simply demand from the navigator the address of the site or the value of certain

fields of a web page (whether or not in Secure Sockets Layer mode) filled out by the user and the navigator provides the spyware with this information.

~~Already known in the prior art from the American patent US no. 6,000,032~~ discloses a device and a procedure for obtaining a security value which enables a calling module to access in a secure manner a called module in a digital computer. ~~This~~That device makes it possible to grant access to a program module solely upon presentation of a predefined value. However, the problem resolved by ~~this~~that device is the protection of a software program system from hostile attacks while authorizing the identified interlocutors to access the data. The procedure employs relatively complicated calculations intended to determine the rights of the calling module. ~~This~~That invention ~~of the prior art~~ thus does not respond to the same technical problem and the solution that it proposes is too complicated ~~to be implemented for the problem that the present invention intends to resolve.~~

On the other hand, a known solution consists of developing alternatives to the widely distributed applications in a manner ~~so as to~~ profit from the ignorance of the new applications by the spyware programs. ~~This~~That solution has as a principal and fundamental limit that when the alternative becomes known, the developers of the spyware programs integrate it in the list of applications with which they can communicate.

~~The present invention has the intention of resolving the drawbacks of the prior art by proposing a system using the standard inter-application messages of the operating system in order to implement a control of access to these data by an application.~~

Summary of the Invention

This invention relates to a procedure for communication between at least two applications A and B in an operating system intended to prevent application A from accessing information content of an application window B, including creating at least one variable by application B, receiving a

request from application A by application B, verifying a value of the variable by application B to verify validity of the request or of authenticating its origin, and responding to the request as a function of the value and/or the origin.

Brief Description of the Drawings

Better understanding of the invention will be obtained from the description below, presented for purely explanatory purposes, of one mode of implementation of the invention with reference to the attached figures:

Fig. 1 illustrates the standard process of communication between two applications; and

Fig. 2 illustrates the procedure for communication between two applications according to aspects of the invention.

Detailed Description

This invention resolves the drawbacks of the prior art by providing a system using the standard inter-application messages of the operating system to implement a control of access to these data by an application.

~~In order to accomplish this, the present~~The invention is of the type described above and it is remarkable in its broadest sense in that it pertains to a procedure for communication between at least two applications A and B in an operating system intended to prevent application B from accessing the information content of an application window A, ~~characterized in that it comprises~~comprising the following steps:

[[-]] a step of creation of at least one variable by application A;

[[-]] a step of reception of a request from application B by application A;

[[-]] a step of verification of the value of ~~said~~the variable by application A with the goal of verifying the validity of ~~said~~the request or of authenticating its origin;

[[-]] a step of response to ~~said~~the request as a function of ~~said~~the value and/or ~~said~~the origin.

In one particular case of the invention, the two applications A and B are the same, i.e., A is equal to B. The procedure then comprises an additional step consisting of modifying the value of the variable for which ~~said~~the request is considered valid. The verification step is advantageously implemented by an overloaded function of the operating system. The operating system is preferably Microsoft Windows™, but it can also be any other operating system capable of using/managing messages between applications.

According to one ~~mode of implementation~~aspect of the invention, ~~said~~the value verified by application A is different from a predefined value and the response step consists of not satisfying said request. According to another ~~mode of implementation~~aspect, ~~said~~the value verified by application A is equal to a predefined value and the response step consists of satisfying ~~said~~the request.

~~Better understanding of the present invention will be obtained from the description below, presented for purely explanatory purposes, of one mode of implementation of the invention with reference to the attached figures:~~

- ~~—figure 1 illustrates the standard process of communication between two applications;~~
- ~~—figure 2 illustrates the procedure for communication between two applications according to the invention.~~

According to one ~~preferred mode of implementation~~aspect of the invention, the invention pertains to the Windows™ operating system in its most widely used versions. In this operating system, an application A, which can be an instant messaging program equipped with a spy program, attempts to recover the value of the URL field of an application window B which can be, e.g., an Internet navigator.

In a standard operating system, the applications communicate according to the procedure described above and ~~as~~ illustrated in ~~figure~~Fig. 1.

In step (1), an application A addresses a message to an application B ~~in order~~ to obtain information on the elements of application B.

Please replace paragraphs [0019] through [0020] with the following:

In a system comprising an application B equipped ~~with~~to effect the procedure according to aspects of the invention, the communications between another application A and ~~said~~the application B are illustrated in ~~figure~~Fig. 2.

In step (4), an application A addresses a message to an application B ~~in order~~ to obtain information on the elements of application B.

Please replace paragraphs [0022] through [0023] with the following:

If the value authorizes that response to the message, application B responds to application A in the same manner as in the standard procedure (step 6). In the contrary case, application B does not respond to application A but informs the operating system that the message was processed (step 7).

Please replace paragraph [0025] with the following:

An application A desiring to obtain information from an application B generates a "send_message" command with ~~as parameters~~the message type and ~~the~~identity of the addressee parameters. If the target application B is a navigator and the application attempts to obtain the content of the URL field of application B, the message type will be CB_GETLBTEXT and the identity of the addressee will be the identifier of the target application window B. This command induces the creation of a variable in the registers of application A intended to collect the response of the targeted application as well as ~~the sending of~~a message from the operating system containing the address of the register variable and the identity of the addressee.

Please replace paragraphs [0027] through [0028] with the following:

Upon creation of the target window, one processing function ~~was~~is attributed to this window intended in particular to process the messages intended for this window. This function is called “DefWindowProc()” in Microsoft Windows™. The messages are thus arranged in a pile.

For each message of the pile, the processing function reads the message and responds to it by filling out the empty fields of the register of application A created upon the emission of the message by the application. In certain versions of Microsoft Windows™, these fields are called “wparam” and “lparam”, and contain on the one hand the length of the response and on the other hand the response. In Microsoft Windows™, if the request consists of obtaining the value of the URL field of the navigator, the processing function of the window will read the value contained for the variable “ComboBoxEx” (corresponding to said URL field) ~~in order~~ to provide the response.

Please replace paragraph [0030] with the following:

The procedure according to aspects of the invention ~~consists of~~includes performing the following operations.

Please replace paragraph [0031] with the following:

Prior to any communication and the launching of target application B, of:

- creating and initializing (at 0) a variable of origin in the registers of application B intended to subsequently determine the origin of the incoming messages.

- Upon creation of a window, of creating a new processing function similar to that created by default and of overloading this new processing function ~~in order~~ to determine the origin of the incoming messages.

Please replace paragraph [0035] with the following:

The invention ~~was~~is described above as an example. It is understood that ~~the expert~~one skilled in the field ~~could~~can implement different ~~variants~~aspects of the invention without ~~thereby~~ going beyond the scope of the ~~patent~~invention as defined in the appended claims.